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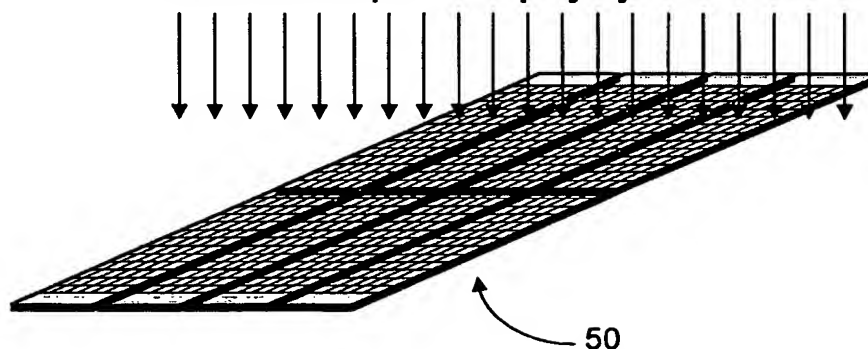
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(54) Title: **PIXEL DETECTOR AND METHOD OF MANUFACTURE AND ASSEMBLY THEREOF**

Growth of amorphous or polycrystalline sensor material



(57) Abstract: A detector assembly (50) is formed by integrating the electronic processing circuits on a CMOS wafer by stitching a plurality of reticles of at least two different types so as to form an integrated circuit having an array of electronic processing circuits each having a respective sensor input disposed toward a first surface of the wafer and accessible from the first surface via a contact formed near an edge of the integrated circuit. Sensor elements (56) are disposed on the first surface of the respective integrated circuits in the detector whereby an exposed surface of the sensor elements forms a common first electrode towards which incident photons are directed, and an opposite unexposed surface thereof forms multiple second electrodes of opposite polarity to the first electrode each in registration with a corresponding sensor input.

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